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REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicant respectfully submits that the pending claims comply with 35 U.S.C. § 112, and are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicant respectfully requests that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicant will now address each of the issues raised in the outstanding Office Action.

Objections

Claim 62 is objected to under 37 C.F.R. § 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Since claim 62 has been canceled, this objection is rendered moot.

Rejections under 35 U.S.C. § 112

Claim 62 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Since claim 62 has been canceled, this rejection is rendered moot.

Rejections under 35 U.S.C. § 103

Claims 7-10, 12, 13, 19-22, 24, 25, 32-35, 37, 38, 53, 54, 56, 57, 62-64, 66, 67, 74, 75, 77, 78 and 85 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0078928 ("the Dorosario publication") in view of U.S. Patent No. 6,453,315 ("the Weissman patent") and U.S. Patent No. 6,907,566 ("the McElfresh patent"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

As shown, in the example illustrated in Figure 16, embodiments consistent with the present invention may be used to search for items such as ads 1660 by accepting a query (e.g., iditarod 1620), finding related word(s) (e.g., alaska, dog sled, ... malamute 1634), and generating, automatically, a request including both the word in the original query, as well as the related word(s) (e.g., request 1640 including both iditarod and alaska, ... malamute).

Still referring to Figure 16, the items (e.g., ads) returned may be scored. The score of items returned in response to the related word(s) may be penalized relative to those returned in response to word(s) in the original query. For example, since ad A was returned in response to related word "alaska", its score is multiplied by a factor of 0.7 (1692). Since, on the other hand, ad B was returned in response to the word "iditarod" from the original query (1620), its score is not penalized (1694).

The Dorosario publication is also used to serve ads. However, the Dorosario publication basically generates a list of preferred advertisement categories for a user by monitoring that user's search queries. (See, e.g., blocks 102, 104 and 106 of Figure 3.) Ads are also associated with advertisement categories. (See, e.g., block 118 of Figure 3.) This list of preferred advertisement categories is then used to serve ads to the user, where the ads pertain to categories that the user should be interested in. (See, e.g., 120 and 122 of Figure 3.)

To generate the list of preferred advertisement categories for a user, the Dorosario publication may:

include a query monitoring process for **monitoring** the queries entered by a user. A query association process **associates** each monitored query with one or more predefined advertisement categories. A preference file maintenance process **maintains**, for each user, an advertisement preference file that specifies the predefined advertisement categories associated with each monitored query entered by the user. [Emphasis added.]

Paragraph [0005]. More specifically, the query may be parsed into chunks. The Dorosario publication may include:

a word association process for **associating** one of the plurality of predefined advertisement categories with one or more of the discrete chunks included in the query. The query association process includes a word categorization process for **categorizing**

one or more of the discrete chunks included in the query into one of the plurality of predefined advertisement categories if it is determined that the one or more discrete chunks **is not currently associated with any of the plurality of predefined advertisement categories**. The query association process includes a word recategorization process for **recategorizing** one or more of the discrete chunks included in the query into a different predefined advertisement category if it is determined that the existing association of the one or more discrete chunks with its predefined advertisement category **is no longer valid due to changes in the user's query patterns**. [Emphasis added.]

Paragraph [0009].

The Dorosario publication also introduces, generally, how search engines may work in paragraphs [0025]-[0037].

Having introduced both exemplary embodiments consistent with the claimed invention, as well as the Dorosario publication, at least some of the patentable features of the claims are now discussed.

Independent claims 7, 19, 32, 53, 63 and 74, as amended, are not rendered obvious by the Dorosario publication, the Weismann patent, and the McElfresh patent at least because:

(1) these references, either taken alone or in combination, neither teach, nor suggest, an act of (or means for) **automatically** generating an ad

request including both (i) a word included in an accepted search query, and (ii) one or more words determined to be related to the word included in the accepted search query;

(2) these references, either taken alone or in combination, neither teach, nor suggest, an act of (or means for) adjusting the scores of any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query relative to any items retrieved on the basis of the word included in the accepted search query, or an act of (or means for) determining a score for each of a number of retrieved items, wherein a score component is adjusted for any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query; and

(3) one skilled in the art would not have combined these references as proposed by the Examiner.

Each of these three issues is addressed below.

First, independent claims 7, 19, 32, 53, 63 and 74, as amended, are not rendered obvious by the Dorosario publication, the Weismann patent, and the McElfresh patent because these references, either taken alone or in combination, neither teach, nor suggest, an act of (or means for) **automatically** generating an ad request including both (i) a word included in an accepted search query (recall, e.g., "iditarod" in Figure 16), and (ii)

one or more words determined to be related to the word included in the accepted search query (recall, e.g., "alaska", "dog sled", ..., "malamute" in Figure 16.).

The Examiner cites paragraphs [0036] and [0041]-[0043] of the Dorosario publication as teaching generating an ad request including both (i) a word included in an accepted search query, and (ii) one or more words determined to be related to the word included in the accepted search query. (See Paper No. 20071119, page 3.) However, the claims, as amended, require that this be done **automatically**. The Dorosario publication does not teach or suggest such a feature. Specifically, paragraph [0036] of the Dorosario publication illustrates how to resolve an ambiguous query word, such as "Saturn" which might pertain to the planet, the car, or the video game. The Dorosario publication discusses presenting suggestions to a user, and modifying (effectively narrowing) the search according to the selection made by the user. Thus, although the Dorosario publication may be used to modify a search query with supplemental search terms, it does not do so **automatically**, but rather requires user selection.

Paragraphs [0041]-[0043] of the Dorosario publication discuss associating words or phrases (e.g., chunks) of a user query with advertisement categories. As an example, "german sheppard" may be associated with the category "dogs". These categories then populate a user's preferred ad preference file, which is a list of predefined ad categories to which the user's past queries (or portions thereof) belong. These categories, but apparently not the original search query terms, are used to target ads. Thus, even if these categories (e.g.,

"dog") can be characterized as words related to words of the search query (e.g., "german sheppard"), the Dorosario publication apparently only uses the category, but apparently does not use the original search query, to retrieve ads. For example, the Dorosario publication states:

advertisement targeting process 34 allows for the creation and maintenance of an **advertisement preference files 48 for each user** 10 entering a query 40 into search engine 20. These advertisement preference files specify the areas of interest for that particular user. Accordingly, by understanding the areas in which a particular user is interested, **area-specific advertising can be targeted and transmitted to that user.** Advertisement targeting process 34 includes a file repository process 80 for storing **advertisements grouped in accordance with predefined advertisement categories** 44. Thus, if user 10 runs a considerable number of searches (i.e. executes queries) relating to automobiles, they are most-likely a car enthusiast. Therefore, advertisement preference file 48 would specify an area of interest for user 10 as being **automobiles**. Therefore, user 10 would probably be interested in seeing ads relating to various automobiles and automobile related products (e.g., automotive accessories, high performance driving schools, etc.).

An advertisement transmission process 82 processes the advertisement preference file 48 for user 10, **retrieves the appropriate category-specific advertisements from advertisement repository 80 and**

transmits these advertisements to user
10 so they can be viewed/heard on
user's computer 38. [Emphasis added.]

Paragraphs [0065] and [0066].

As can be appreciated from the foregoing, the cited portions of the Dorosario publication do not teach an act of, or means for, **automatically** generating an ad request (a user selection is required in paragraph [0036] of the Dorosario publication) including **both** (i) a word included in an accepted search query, **and** (ii) one or more words determined to be related to the word included in the accepted search query (apparently, only the category, not the original query terms, is used to retrieve ads in the Dorosario publication).

Thus, independent claims 7, 19, 32, 53, 63 and 74, as amended, are not rendered obvious by the Dorosario publication, the Weismann patent, and the McElfresh patent for at least this first reason. Since claims 8-10, 12, 13 and 85 directly or indirectly depend from claim 7, since claims 20-22, 24 and 25 directly or indirectly depend from claim 19, since claims 33-35, 37 and 38 directly or indirectly depend from claim 32, since claims 54, 56, 57 and 62 directly or indirectly depend from claim 53, since claims 64, 66 and 67 directly or indirectly depend from claim 63 and since claims 75, 77 and 78 directly or indirectly depend from claim 74, these claims are similarly not rendered obvious by the cited references.

Second, independent claims 7, 19, 53, and 63, as amended, are not rendered obvious by the Dorosario publication, the Weismann patent, and the McElfresh

patent because these references, either taken alone or in combination, neither teach, nor suggest, an act of (or means for) adjusting the scores of any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query (e.g., a score of ad A, retrieved due to "alaska", is multiplied by 0.7 in Figure 16) relative to any items retrieved on the basis of the word included in the accepted search query (e.g., the score of ad B, which is retrieved due to "iditarod", is not adjusted in Figure 16). Similarly, independent claims 32 and 74 are not rendered obvious by the Dorosario publication, the Weismann patent, and the McElfresh patent because these references, either taken alone or in combination, neither teach, nor suggest, an act of (or means for) determining a score for each of a number of retrieved items, wherein a score component is adjusted for any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query (e.g., a score of ad A, retrieved due to "alaska", is determined using adjustment factor 0.7 in Figure 16) relative to any items retrieved on the basis of the word included in the accepted search query (e.g., the score of ad B, which is retrieved due to "iditarod", is not adjusted in Figure 16). Note that some embodiments consistent with the present invention adjust a previously determined score (See, e.g., 690 of Figure 6.), while in other embodiments consistent with the present invention, the score is effectively adjusted during its determination (See, e.g., 535 and 550 of Figure 5.)

The Examiner cites paragraph [0044] of the Dorosario publication as teaching these feature. (See Paper No.

20071119, page 4.) However, this section of the Dorosario publication concerns automatic categorization methods for categorizing previously uncharacterized words into categories. Thus, predefined advertisement categories can change and evolve. As one example, the category "baseball" might initially include the names of all present major league baseball teams. However, this category might evolve to later include the names of expansion teams. Although not mentioned in the cited section, the categorization of a word or phrase may change over time. For example, the term "titantic" might be initially categorized under "history", but might later be categorized under "entertainment". (See, e.g., paragraph [0054] of the Dorosario publication.)

In any event, neither the automated categorization techniques, nor the fact that words may be recategorized, teach adjusting a score, or influencing the scoring, of items retrieved on the basis of an item request including a word included in an accepted search query and one or more words determined to be related to the word included in the accepted search query such that any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query are treated differently than any items retrieved on the basis of the word included in the accepted search query.

During an earlier telephone interview, Examiner Nguyen and SPE Stamber seemed to appreciate this feature, and how it differed from the Dorosario publication, particularly when understood in the context of the example of Figure 16 of the present application.

Thus, independent claims 7, 19, 32, 53, 63 and 74, as amended, are not rendered obvious by the Dorosario publication, the Weismann patent, and the McElfresh patent for at least this second reason. Since claims 8-10, 12, 13 and 85 directly or indirectly depend from claim 7, since claims 20-22, 24 and 25 directly or indirectly depend from claim 19, since claims 33-35, 37 and 38 directly or indirectly depend from claim 32, since claims 54, 56, 57 and 62 directly or indirectly depend from claim 53, since claims 64, 66 and 67 directly or indirectly depend from claim 63 and since claims 75, 77 and 78 directly or indirectly depend from claim 74, these claims are similarly not rendered obvious by the cited references.

Third, one skilled in the art would not have combined these references as proposed by the Examiner. The Examiner contends:

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Weissman et al., with the particular search architecture and score adjustment feature based on ad performance information as taught by Weissman et al. and McElfresh et al. ***One would have been motivated to modify the method to increase the efficiency in the targeting of the advertisement by incorporating an adjustment based on the prior interaction of the users with the ads.*** Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman

et al. and McElfresh et al. with the adjusting being solely based on the one or more words determined to be related to the word included in the accepted search query relative to any items retrieved on the basis of the word included in the accepted search query since it was known in the art that different schemes of advertising utilizing an assortment of features are used to provide a specific scope in the targeted audience sought by the advertiser such as the criteria included in broadening and/or restricting the reach of the targeted advertisement in view of the search results. ***The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of a skilled artisan.*** [Emphasis added.]

(Paper No. 20071119, pages 4 and 5.) The applicant respectfully disagrees.

First, the Examiner alleges that the proposed combination would "increase the efficiency in the targeting of the advertisement [by the Dorosario patent] by incorporating an adjustment based on the prior interaction of the users with the ads." (Paper No. 20071119, page 4) However, as discussed above, the Dorosario patent generates a list of preferred advertisement categories for a user by monitoring that user's search queries. (See, e.g., blocks 102, 104 and 106 of Figure 3.) Ads are also associated with advertisement categories. (See, e.g., block 118 of Figure 3.) This list of preferred advertisement categories is then used to serve ads to the user, which ads pertain to categories that the user should be interested in. (See, e.g., 120 and 122 of Figure 3.)

The applicant respectfully submits that *it is unpredictable whether modifying a system targeting ads to a particular user using that particular user's search queries to further consider the prior interaction of other users with ads would "increase the efficiency in the targeting of advertisements" as alleged by the Examiner.* Thus, one skilled in the art would not have combined the references as proposed by the Examiner for at least this reason. Consequently, independent claims 7, 19, 32, 53, 63 and 74 are not rendered obvious for at least this additional reason. Since claims 8-10, 12, 13 and 85 directly or indirectly depend from claim 7, since claims 20-22, 24 and 25 directly or indirectly depend from claim 19, since claims 33-35, 37 and 38 directly or indirectly depend from claim 32, since claims 54, 56, 57 and 62 directly or indirectly depend from claim 53, since claims 64, 66 and 67 directly or indirectly depend from claim 63 and since claims 75, 77 and 78 directly or indirectly depend from claim 74, these claims are similarly not rendered obvious by the cited references.

Second, the Examiner's finding that "a particular known technique *was recognized as part of the ordinary capabilities of a skilled artisan*" is insufficient to support a conclusion that one skilled in the art would have combined the references as proposed by the Examiner. Frankly, the Examiner's rationale does not show a motivation for one skilled in the art to combine the references as proposed, nor does it provide any obvious rationale for making such a combination. Consequently, independent claims 7, 19, 32, 53, 63 and 74 are not rendered obvious for at least this additional reason.

Since claims 8-10, 12, 13 and 85 directly or indirectly depend from claim 7, since claims 20-22, 24 and 25 directly or indirectly depend from claim 19, since claims 33-35, 37 and 38 directly or indirectly depend from claim 32, since claims 54, 56, 57 and 62 directly or indirectly depend from claim 53, since claims 64, 66 and 67 directly or indirectly depend from claim 63 and since claims 75, 77 and 78 directly or indirectly depend from claim 74, these claims are similarly not rendered obvious by the cited references.

Claims 14-17, 26-29, 39-42, 58-61, 68-71 and 79-82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Weissman patent and the Dorosario publication and further in view of U.S. Patent Application Publication No. 2002/0059094 ("the Hosea publication"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Examiner concedes that the Dorosario publication, the Weissman patent and the McElfresh patent do not teach updating a multiplier using the formula:

$$\text{updated_multiplier} = \frac{N \cdot \text{initial_multiplier} + \text{observed_user_behavior}}{N + \text{naively_predicted_user_behavior}}$$

To compensate for this admitted deficiency, the Examiner relies on the Hosea publication as teaching an adaptive profiling algorithm, and concludes that it would have been obvious to use this feature of the Hosea publication to modify the Examiner's proposed combination. (See Paper No. 20071119, page 8.)

First, the purported teachings of the Hosea publication would not compensate for the deficiencies of

the Dorosario publication, the Weissman patent and the McElfresh patent with respect to claims 7, 19, 32, 53, 63 and 74, discussed above, regardless of the scope of the purported teachings of the Hosea publication, and regardless of the presence or absence of an obvious reason to combine these references. Thus, these claims are not rendered obvious by the Dorosario publication, the Weissman patent, the McElfresh patent and Hosea publication for at least this reason.

Second, the algorithm discussed in cited paragraphs [0043] and [0044] of the Hosea publication is different from that claimed. Thus, these claims are not rendered obvious by the Dorosario and Hosea publications for at least this additional reason.

Conclusion

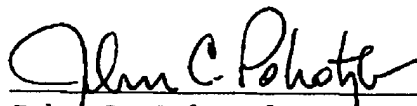
In view of the foregoing amendments and remarks, the applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, the applicant requests that the Examiner pass this application to issue.

Any arguments made in this amendment pertain **only** to the specific aspects of the invention **claimed**. Any claim amendments or cancellations, and any arguments, are made **without prejudice to, or disclaimer of**, the applicant's right to seek patent protection of any unclaimed (e.g., narrower, broader, different) subject matter, such as by way of a continuation or divisional patent application for example.

Further, the applicant reserves it's right to separately argue the patentability of separate features of the various independent claims, and/or separate features of various dependent claims, even if such features were not specifically addressed in this response. To the extent that the patentability of any such feature(s) was addressed in one or more prior actions, such arguments are incorporated herein by reference, to the extent applicable.

Respectfully submitted,

March 20, 2008

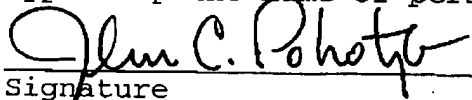

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